

Table of Geochronologic Samples			
Date	Rock Unit	<u>Method</u>	Reference
5 ±16 Ma .1±4.7 Ma 1±42 Ma ±2.01 Ma	Xmg Xmv Xmv Ygd	U-Pb zircon 40Ar/39Ar (hornblende) 40Ar/39Ar (hornblende) 40Ar/39Ar (muscovite)	Brown, et al. (1999) Brown, et al. (1999) Brown, et al. (1999) Brown, et al. (1999)

7. <u></u>	consists of 0.04–0.2 in- (1-5 mm-) thick black and red hematite-rich layers. Cross bedding is locally preserved. Interlayered with the quartzite are greenish-gray micaceous quartzite, that contain up to 35% muscovite and chlorite. Protolith for the thickly bedded quartzite was pure quartzose sands intermixed with impure sandstones and siltstones. Includes the Cerro Pelon and Coyote quartzites of Cavin (1985)
Xla	Lithic arenite — A variety of metasedimentary rocks including metawacke, meta-arkose and impure metaquartzite. Up to 50% of this unit is a brown weathered impure arkosic metaquartzite with light greet to gray fresh surfaces. Schistosity is variably developed throughout most of the unit and appears to be better developed towards the contact with the Manzanita granite. Compositional layering (S ₀) is variably preserved and is generally at low angles to the dominant schistosity (S ₁). Metamorphic grade and field appearance of this unit varies towards the Manzanita granite suggesting development of a contact aureole associated with granite emplacement. Away from the Mazanita granite metasedimentary rock have a granular appearance with a weak foliation. Samples of metasediments near the Manzanita granite are granoblastic hornfels with porphyroblasts of andalusite, sillimanite, kyanite and garnet. Schists and slates are also more evident closer to the Manzanita granite contact.
/Xp/	Phyllite and schist — Occurs as interlayered and gradational with the lithic arenite but has been mapped as a separate unit in several zones where it constitutes greater than 90% of the exposure. This unit also occurs throughout the metasedimentary unit (Xla) as <20 ft (<5 m) thick beds that were too small to map as individual units. This unit consists of blue to light grayish green phyllite that become more schistore and massive in exposures closer to the Manzanita granite. Parent rocks for this lithology were siltstones
Xc	Metachert and Jasperoid — Occur as prominent, low-lying outcrops infolded and interlayered with the metavolcanic, the metasedimentary, and the blue phyllite unit. These layers range from several on to m thickness and are discontinuous along strike frequently pinching off within phyllitic layers or adjacer to chlorite-rich amphibolites. This unit varies from white to hematite-stained quartz-rich sediment with narrow miceous zones parallel to local foliation. Jasperoids consist of red-stained, discontinuous pod of jasper. This unit marks the transition from volcanic to clastic deposition.
Xdt	Dacite tuff — Gray to light grayish green dacite metatuff with a well-developed schistosity. Major part of this unit contains flattened ovoid shaped fragments of light gray to buff phyllite, chlorite phyllite, cherr metaquartzite and greenstone. These fragments range in size from 1.5 to 12 in (4 to 30 cm) and are aligned parallel with the schistosity. Towards the gradational contact with the metasedimentary unit the metatuff contains abundant (up to 80%) blue to blue-gray phyllite fragments. The matrix of the metatuf is fine grained, gray to greenish gray. The metatuff is interpreted to be the metamorphic equivalent of crystal and vitric-crystal tuff that is dominantly dacite with minor andesite. Includes the Lacorocah metatuf of Parchman (1980).
Xiv	Intermediate metavolcanics rocks – Buff, schistose bands intimately interfingered with the greenstone (<i>Xmv</i>) and metatuff (<i>Xmt</i>) units. This unit also defines broad, regional folds. Lithologies within this uniconsists of a mixture of volcaniclastic rocks including quartz-mica phyllites and volcanic rocks with an andesitic composition (Parchman, 1980). In outcrop this unit has a brown to gray-green color with a moderately well-developed schistosity.
Xmv	Mafic metavolcanic rocks – Heterogeneous metavolcanic unit composed of basaltic greenstoness intermediate volcanics, volcaniclastic greenschists (quartz-actinolite-chlorite schists) and metapelites. Rare epidote-rich bands are present in some areas and may denote margins of metamorphosed pillows. Othe primary features include compositional layering defined by white, plagioclase(?)-rich layers that are parallel to foliation and plagioclase-phenocrystic volcanic rocks. Unit grades upwards to volcaniclastic rocks (<i>Xdt</i>) and is interlayered with mappable units of felsic to intermediate volcanic rocks (<i>Xiv</i> and <i>Xdt</i>) Unit includes Coyote greenstone and Isleta greenstone of Cavin (1985) and the lower part of Tijera greenstone of Connolly (1981).
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